



Department of Health

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TO: Healthcare Providers, Hospitals, Clinical Laboratories and Local Health Departments (LHDs)

FROM: New York State Department of Health (NYSDOH) Bureaus of Communicable Disease Control (BCDC) and Healthcare Associated Infections (BHA)

HEALTH ADVISORY: ENTEROVIRUS D68

For healthcare facilities, please distribute to the Infection Control Department, Emergency Department, Infectious Disease Department, Director of Nursing, Medical Director, Director of Pharmacy, Laboratory Service, and all patient care areas.

SUMMARY

Enterovirus D68 (EV-D68) is one of more than 100 non-polio enteroviruses. NYSDOH has recently detected an increase in EV-D68 activity in the State and is issuing this advisory to provide healthcare providers, healthcare facilities and LHDs with the most current information on the virus.

EPIDEMIOLOGY

Small numbers of EV-D68 have been reported regularly in the U.S. since 1987. Individuals are more likely to get infected with enteroviruses in the summer and fall. Because a mix of enteroviruses circulates every year, different types of enteroviruses can be common in different years.

In summer and fall 2014, New York and other states witnessed an outbreak of EV-D68 associated with severe respiratory illness. From mid-August 2014 to January 15, 2015, the Centers for Disease Control and Prevention (CDC) or state public health laboratories confirmed a total of 1,153 people in 49 states and the District of Columbia with respiratory illness caused by EV-D68. Almost all the confirmed cases were among children, many of whom had asthma or a history of wheezing. Additionally, there were likely many thousands of mild EV-D68 infections for which people did not seek medical treatment and/or get tested. This was the first documented nationwide outbreak of EV-D68.

SYMPTOMS, TRANSMISSION AND RISK GROUPS

EV-D68 can cause mild to severe respiratory illness, or no symptoms at all. Mild symptoms may include runny nose, sneezing, cough, body aches, and muscle aches. Severe symptoms may include wheezing and difficulty breathing. The virus has also been identified in individuals with acute flaccid myelitis (AFM). Importantly, no single pathogen (including EV-D68) has been consistently detected in AFM.

patients' spinal fluid; a pathogen detected in the spinal fluid would be good evidence to indicate the cause of AFM since this condition affects the spinal cord.

EV-D68 can be found in an infected person's respiratory secretions. The virus likely spreads from person to person when an infected person coughs, sneezes, or touches a surface that is then touched by others.

In general, infants, children, and teenagers are most likely to get infected and become ill because they do not yet have immunity from previous exposures to enteroviruses. Children with asthma may have a higher risk for severe respiratory illness caused by EV-D68 infection. Adults can get infected with enteroviruses, but they are more likely to have no symptoms or mild symptoms.

LABORATORY TESTING AND DIAGNOSIS

EV-D68 can be detected in respiratory specimens, (such as nasopharyngeal swabs, oropharyngeal swabs) and testing should be considered in patients with severe respiratory illness, particularly those with a positive enterovirus or enterovirus/rhinovirus detection, as well as in patients with neurologic disease and a positive enterovirus detection. Infection with enteroviruses can be identified by direct immunofluorescent staining on primary specimens or cultured viral isolates, or by molecular assays. Many molecular assays available at hospital, clinical, and commercial laboratories can detect enteroviruses, such as the BioFire FilmArray Respiratory Panel or GenMark ePlex Respiratory Pathogen (RP) Panel, but they cannot distinguish the enterovirus type.

The Department's Wadsworth Center Laboratories can perform typing for EV-D68 by conventional RT-PCR and dideoxysequencing. Healthcare providers and facilities that wish to submit samples from patients with severe illness and who have previously tested positive on an assay for enterovirus or enterovirus/rhinovirus should contact BCDC at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays for approval before sending specimens to Wadsworth. Specimens without prior approval will not be accepted.

INFECTION CONTROL

Healthcare professionals in healthcare settings should be vigilant about preventing the spread of EV-D68. Infection control precautions should include Standard, Contact, and Droplet Precautions. Although non-enveloped viruses such as EV-D68 may be less susceptible to alcohol than enveloped viruses or vegetative bacteria, alcohol-based hand rub (ABHR) offers benefits in skin tolerance, compliance, and, especially when combined with glove use, overall effectiveness for a wide variety of healthcare pathogens. Therefore, upon removal and before donning personal protective equipment, perform hand hygiene using either ABHR or soap and water.

CLINICAL MANAGEMENT

There is no specific treatment, including antivirals, currently available for people with illness caused by EV-D68. Patients who are hospitalized with severe respiratory illness may need to receive intensive supportive therapy.

REPORTING OF CASES

Providers should promptly report patients with severe illness and who have previously tested positive on an assay for enterovirus or enterovirus/rhinovirus to BCDC at 518-473-4439 during business hours or 866-881-2809 evenings, weekends, and holidays.

QUESTIONS

Questions regarding clinical or epidemiological information should be directed to your LHD or the NYSDOH Bureau of Communicable Disease Control at (518) 473-4439 and bcdc@health.ny.gov. Questions about infection control should be directed to the NYSDOH Bureau of Healthcare Associated Infections at (518) 474-1142 and icp@health.ny.gov.

For more information, please see:

Enterovirus-D68 for Health Care Professionals (CDC)
<https://www.cdc.gov/non-polio-enterovirus/hcp/ev-d68-hcp.html>

Standard Precautions (CDC)
<https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html>

Transmission-based Precautions (CDC)
<https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html>

Hand hygiene in healthcare settings (CDC)
<https://www.cdc.gov/handhygiene/>